

App. Nr.: 10/825,728

Amendment C (contd)

2

CLAIM AMENDMENTS

Claims 1-14 (canceled).

Claim 15 (withdrawn): A process of producing a lining structure, comprising the steps of:

- (a) palletizing a polyethylene and a foaming agent to form a palletized raw material;
- (b) extruding said palletized raw material to make a solid sheet;
- (c) cross-linking said solid sheet by an electron-beam to form an irradiated matrix; and
- (d) foaming said irradiated matrix into a sheet-like foaming cushion layer.

Claims 16-21 (canceled).

Claim 22 (withdrawn): The lining structure, as recited in claim 15, further comprising a step of integrally attaching a fabric lining layer to one side of said cushion layer.

Claim 23 (withdrawn): The lining structure, as recited in claim 22, further comprising a step of integrally attaching a sheet of cover layer to another side of said cushion layer.

Claims 24-34 (canceled).

Claim 35 (new): A shoe lining structure for a boot having an outer shell, comprising:

a pair of interior lining members each of which is cut into a boot shape, wherein said interior lining members are stitched edge to edge together to form stitching edges, wherein said stitching edges of said interior lining members are further thermoplastically seamed together to form said shoe lining structure for fitting into said outer shell of said boot, wherein each of said interior lining members consists of a sheet-like waterproof and air breathable foaming cushion layer, a lining layer integrally attached to one side of said

App. Nr.: 10/825,728

Amendment C (contd)

3

said foaming cushion layer, and a cover layer integrally attached to another side of said foaming cushion layer, wherein said foaming cushion layer is made of a composition of low density polyethylene, a foaming agent including azodicarbonamide, a pigment, and additives including Zinc Oxide and Zinc Stearate integrally mixing with said low density polyethylene and said foaming agent;

wherein said foaming cushion layer is made by irradiation technology wherein raw materials including said polyethylene, said azodicarbonamide, said Zinc Oxide, said Zinc Stearate, and said pigment are palletized to make a solid sheet which polyolefin molecules are crosslinked by electron-beam irradiation to form an irradiated matrix, wherein said irradiated matrix is foamed at normal atmosphere and high temperature to have water repellant and air breathable properties to obtain said sheet-like foaming cushion layer.

Claim 36 (new): The shoe lining structure, as recited in claim 35, wherein said raw materials include 100phr of said polyethylene (LDPE), 18phr of said azodicarbonamide (ADCA), 0.1phr of said Zinc Oxide (ZnO), 0.1phr of said Zinc Stearate (ZnSt), and 1.0phr of said pigment.

Claim 37 (new): A footwear, comprising:

a boot having an outer shell; and

a shoe lining structure, which is fitted into said outer shell of said boot, comprising a pair of interior lining members each of which is cut into a boot shape, wherein said interior lining members are stitched edge to edge together to form stitching edges, wherein said stitching edges of said interior lining members are further thermoplastically sealed together to form said shoe lining structure, wherein each of said interior lining members consists of a sheet-like waterproof and air breathable foaming cushion layer, a lining layer integrally attached to one side of said foaming cushion layer, and a cover layer integrally attached to another side of said foaming cushion layer, wherein said foaming cushion layer is made of a composition of low density polyethylene, a foaming agent including azodicarbonamide, a pigment, and additives including Zinc Oxide and Zinc Stearate integrally mixing with said low density polyethylene and said foaming agent, wherein said foaming cushion layer is made by irradiation technology wherein raw materials including said polyethylene, said azodicarbonamide, said Zinc Oxide, said Zinc Stearate, and said

App. Nr.: 10/825,728

Amendment C (contd)

4

azodicarbonamide, said Zinc Oxide, said Zinc Stearate, and said pigment are palletized to make a solid sheet which polyolefin molecules are crosslinked by electron-beam irradiation to form an irradiated matrix, wherein said irradiated matrix is foamed at normal atmosphere and high temperature to have water repellant and air breathable properties to obtain said sheet-like foaming cushion layer.

Claim 38 (new): The footwear, as recited in claim 35, wherein said raw materials include 100phr of said polyethylene (LDPE), 18phr of said azodicarbonamide (ADCA), 0.1phr of said Zinc Oxide (ZnO), 0.1phr of said Zinc Stearate (ZnSt), and 1.0phr of said pigment.